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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,092	07/18/2001	Antonio Mugica	38146	7392

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EXAMINER

SORRELL, ERON J

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 11/13/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/682,092

Applicant(s)

MUGICA ET AL.

Examiner

Eron J Sorrell

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/5/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 19-28 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Necessary structural cooperative relationships of elements described in the applicant's specification critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). It is unclear what the structural relationship is between the listed elements in independent claims 19 and 24 without undue experimentation. A mere list of parts does not suffice this requirement.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 19 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Crater et al. (U.S. Patent No. 6,201,996 hereinafter "Crater").

5. Referring to apparatus claim 19 and method claim 24, Crater teaches a controller and method for using the controller comprising:

(a) Hardware comprising of a processing means (see item labeled 112 in figure 1) using an operative system (see item labeled 150 in figure 1) that runs an application, the application made of a plurality of micro-objects from a micro-object library based on the native programming instruction and hardware resources of the controller, the library containing several types of micro-objects, each one with its own methods and capabilities to establish execution relations with other micro-objects (see lines 45-65 of column 4);

a memory means (see item labeled 114 in figure 1);

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an input/output means (see items labeled 120 in figure 1);
and

a communication means (see item labeled 160 in figure 1);

(b) a Monitoring Graphics User Interface which is contained on a computer processing means, interfacing to a plurality of hardware through the micro-objects (see line 42 of column 9 to lines 7 of column 10);

(c) a network adapter (see item labeled 125 in figure 1) that receives from an sends data to a plurality of hardware through the hardware's communication means using the micro-objects (see lines 59-65 of column 8); and

(d) having the monitoring graphics user interface interface to a plurality of hardware through the network adapter (see line 42 of column 9 to lines 7 of column 10).

6. Referring to apparatus claim 20 and method claim 25, Crater teaches the interface from the hardware to the network adapter consists of a send and receive function where the interface converts these functions into network specific routines (see figure 2, line 42 of column 9 to line 7 of column 10 and lines 1-5 of column 5; Note TCP/IP is given as the specific network).

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7. Referring to apparatus claim 22 and method claim 27, Crater teaches the micro-object library is created with a plurality of micro-objects each with each own methods and capabilities (see line of 53 of column 10 line 9 of column 12).

8. Referring to apparatus claim 23 and method claim 28, Crater teaches that when changing hardware, a new set of micro-objects for the new hardware will be used be used that will contain methods and data structure analogue to the old set of micro-objects (see lines 6-16 of column 11).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crater in view of TCP/IP Illustrated Volume 1; Stevens, W. Richard; 1994 hereinafter "Stevens").

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11. Referring to apparatus claim 21 and method claim 26, Crater discloses the communication from the hardware to the network adapter consists of a send and receive function with a logical ID being assigned to each hardware device (see lines 53-64 of column 5). Crater further discloses that any consistent protocol may be used and suggest the use of the Internet Protocol (IP), the Transmission Control Protocol (TCP/IP) or both (TCP/IP) (see lines 53-64 of column 5).

Crater fails to explicitly set forth the limitation that the send function uses four parameters:

Service, whether an acknowledgment is needed;

Destination hardware;

Source hardware; and

Length, which is the length of the data packet to be sent.

Stevens teaches the TCP header comprises:

Service, whether an acknowledgment is needed;

Destination hardware;

Source hardware; and

Length, which is the length of the data packet to be sent (see pages 225-227).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the

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apparatus of method of Crater with the teachings of Stevens such that send function utilizes the four listed parameters. One of ordinary skill in the art would have been motivated to make such modification so the controller can be used in existing networks that use the TCP protocol for data transmissions and the use of that particular protocol is clearly suggested by Crater.

Response to Arguments

12. Applicant's arguments filed 9/5/03 have been fully considered but they are not persuasive. The applicant argues:

1) Crater fails to teach changing the micro-objects sets to a different (analogue) set of objects when targeting a different hardware with equal function (control) characteristics (see third full paragraph of page 7 of applicant's remarks);

2) neither Crater nor Stevens suggests translating the send/receive functions into any protocol necessary by the interface between the controller and network layer (emphasis added) (see 4th full paragraph of page 7 of applicant's remarks).

As per argument 1, the Examiner disagrees. Crater does teach changing the micro-objects sets to a different (analogue) set of objects when targeting a different hardware with equal function (control) characteristics (see lines 6-16 of column 11). Crater

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uses an example of adding a new robot arm (different hardware with equal function (control) characteristics, for example extension and retraction) and adding specific programming for that particular arm (changing the micro-objects sets to a different (analogue) set of objects).

As per argument 2, There is no language in any of the pending claims that have the limitation of "translating the send/receive functions into any protocol necessary by the interface between the controller and network layer" (emphasis added). Claims 20 and 25 have a limitation reading "the interface from the hardware to the network adapter consists of a send and receive function were the interface converts these functions into network specific routines." Crater teaches the claimed limitation (see lines 42-54 of column 9 wherein the specific network routines are the TCP/IP routines (see paragraph bridging columns 4 and 5)).

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this

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action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eron J Sorrell whose telephone number is 703 305-7800. The examiner can normally be reached on Monday-Friday 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on 703 308-3301. The fax phone number for the organization where this application or proceeding is assigned is 703 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-3000.

EJS
November 8, 2003


JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100